

REMARKS – General

Status of Claims and Applicant's Traversal:

The Office Action (OA) rejects, under 35 U.S.C. § 102, claims 5-11 over Grube et al. (U.S. Patent No. 5,666,661), hereinafter "Grube." The Office Action also rejects, under 35 U.S.C. § 103, claims 12, 14-17, and 19 over Grube and Mauney et al. (U.S. Patent No. 6,865,372) and claim 13 over Grube and 3G TR 25.924 V1.0.0 (1999-12) Technical Report, 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Opportunity Driven Multiple Access. These rejections are respectfully traversed.

Claim Rejections under 35 USC §102:

With respect to the §102 rejection over Grube, in Applicant's Appeal Brief, filed August 30, 2007, Applicant argued that Grube does not disclose at one or more mobile stations of the radiotelephone system, detecting other mobile stations to which radio propagation conditions are sufficiently good and at the base station, if the radio propagation conditions between the first mobile station and the second mobile station are sufficiently good, instructing the first mobile station and the second mobile station to establish direct communication.

Applicant now wishes to make additional arguments as to why Applicant's invention, as set forth in claims 5-11, is not anticipated by Grube. Specifically, Applicant respectfully submits herein that, as set forth in claim 5, Applicant's determination of sufficiently good radio propagation conditions, as well as transmission of detecting information from a mobile station to a base station, occurs **prior to** one mobile station initiating communication with another mobile station.

Grube teaches a determination of distance. Grube's determination of distance is performed by the base station, while the communication units are already in communication. Grube does not employ transmission of information regarding detected mobile devices from a mobile device to a base station prior to the mobile device attempting communication with another mobile device.

Prior to setting forth arguments, Applicant notes that in making the traversal, Applicant relies upon MPEP §2131. This states, “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Applicant notes the test is the same for a method or process. Anticipation requires identity between the claimed process and a process of the prior art. The claimed process, including each and every step thereof, must have been described or embodied, either expressly or inherently, in a single reference. *See, e.g., Glaverbel SA v. Northlake Mkt 'g & Supp., Inc.*, 45 F.3d 1550 (Fed. Cir. 1995).

For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by one of ordinary skill in the art to which the invention pertains. *See, e.g., Scripps Clinic & Res. Found. V. Genentech, Inc.*, 927 F.2d 1565 (Fed. Cir. 1991). Said differently, a single prior art reference must properly disclose, teach, or suggest each element of the claimed invention. Moreover, “every element of the claimed invention must literally be present, arranged as in the claim...The identical invention must be shown in as complete detail as is contained in the patent claim.” *See, e.g., Richardson v. Suzuki Motor Company Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

Applicant initially notes that Applicant’s invention, as set forth in claim 5, from which claims 6-11 depend, recites that information concerning the detected mobile stations, which have been detected by the mobile station as having sufficiently good radio propagation conditions with a mobile station, is sent by the mobile station to a base station prior to the mobile station requesting communication with another mobile station. Applicant’s amendment to claim 5 provides only antecedent basis making this clear. The temporal aspect was present in the claim prior to amendment. Nonetheless, support for this temporal aspect is found, for example, in Applicant’s FIG. 2 and the accompanying description, as well as subsequent FIG. 3 and its accompanying description.

Thus, in accordance with Applicant’s invention as set forth in claim 5, a mobile station collects radio propagation information about other mobile stations that may be nearby, determines whether those mobile stations have sufficiently good propagation

conditions with the mobile station, and then sends information concerning the determined mobile stations to a base station prior to initiating contact with another mobile station. When the mobile station wishes to establish communication with another mobile station, the base station can use the received information to determine whether direct communication is possible. Applicant's invention as recited in claim 5 provides the advantage that there is no need to perform additional measurements once a communication request has been initiated.

With respect to Grube, Applicant respectfully submits that Grube teaches a method for automatically switching between two modes of communication after the mobile devices are in at least one mode of operation. Specifically, Grube teaches switching between a direct mode of operation, in which two communication units communicate directly, and a system mode of operation, in which two communication units communicate via a system communication resource.

In Grube, a communication unit must first initiate a call to another communication unit (See Grube, Fig. 2, and accompanying description). The communication resource controller 101 then must determine the geographic locations of the two communication units (not the communication units), and then must determine whether the communication units are close enough to establish direct communication, rather than communication through a system resource. Grube's method is based on location knowledge by the resource controller 101 to determine a distance between the two communication units. In Grube, the resource controller uses this distance between units to decide whether to permit direct communication.

Applicant respectfully submits Grube fails to teach the step of transmitting information about the detected mobile stations from a mobile station to a base station prior to a mobile device requesting communication with another mobile station.

Grube discloses instead the resource controller determining the distance between first and second radio communication units (201, 301). Grube teaches that the communication resource controller (Fig. 1, element 101), not the communication units (Fig. 1, elements 102 and 103), detects this distance (col. 3, lines 1-9 and lines 29-34). In particular, Grube states, "The communication resource controller determines the location of communication units that are engaged in communication." Col. 3, lines 2-4. There is

not a transmission, from a mobile station, of information relating to detected mobile stations to a base station.

Additionally, Grube fails to teach the transmission of such information from a mobile device to a base station. Further, in Grube, the devices are already in communication prior to this distance determination. There is no teaching of any transmission of information about determined mobile stations from a mobile station to the base station prior to a mobile station attempting to initiate communication with another mobile station.

For these reasons, Applicant respectfully submits that claims 5-11 are allowable over Grube. Applicant respectfully requests reconsideration of the rejection in light of these comments.

Claim Rejections under 35 USC §103:

The OA rejects claims 12, 14-17, and 19 over Grube et al. and Mauney et al. (U.S. Patent No. 6,865,372) and claim 13 over Grube and 3G TR 25.924 V1.0.0 (1999-12) Technical Report, 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Opportunity Driven Multiple Access.

In traversing the rejection, Applicant relies upon MPEP §2141, which sets forth the guidelines for making a proper determination of obviousness as guided by the decision by the Supreme Court in *KSR International Co. v. Tele-flex Inc.* (KSR), 550 U.S. 398 (2007). The Court in *KSR* "...reaffirmed the familiar framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). MPEP §2141. The *Graham* analysis requires a determination of the differences between the prior art and an applicant's invention and the level of ordinary skill in the pertinent art. *Id.* Where there are differences, an Office Action "...must explain why the difference(s) would have been obvious to one of ordinary skill in the art." *Id.* Specifically, there must be a "...clear articulation of the reason(s) why the claimed invention would have been obvious." *Id.*

In making the case for obviousness, the Examiner has the burden of establishing the case in a well-reasoned and articulate way. "To facilitate review, this analysis should be made explicit." *KSR* at 412, citing *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006)

“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*

This burden exists because “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR* at 412. Where an invention is contended to be obvious based upon a combination of references, one should be able to identify particular reasons that would have prompted one of ordinary skill in the art to combine the prior art elements. *See KSR* at 412-413. The requirement prevents the use of “...the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight.” *Ecolochem, Inc. v. So. Cal. Edison Co.*, 227 F.3d 1361, 1371-72 (Fed Cir. 2000) (quoting *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999)). “When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper.” *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986).

Applicant initially notes that independent claims 14 and 17 each recite limitations similar to those set forth in claim 5. Specifically, the determination of radio propagation conditions, and transmission (or receipt, as in claim 14) of information to a base station prior to attempted communication with another mobile device. Claim 14 has been amended to clarify antecedents. Claim 17 has been amended for form, to group apparatus components and configurations together for clarity.

As set forth above, Grube fails to teach transmission of information about detected mobile stations to a remote base station prior to the mobile station attempting communication with another mobile station.

Applicant respectfully notes that the addition of Mauney et al. or the Technical Report, 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Opportunity Driven Multiple Access, does nothing to correct this deficiency.

Mauney et al. fails to disclose any method for operating a base station using relay candidate lists. Every embodiment of Mauney et al. is directed to methods performed in a wireless handset. For example, every embodiment of performing a find request with respect to a found list is performed within a handset and the found list is stored in the

handset, not in a base station (Figs 9A-16B, 39A, and 39B and col. 31, line 5 - col. 50, line 27). Furthermore, because Mauney et al. does not disclose the method for operating a base station, Mauney et al. does not disclose transmitting information about detected base stations or relay candidate lists from the mobile device to a base station prior to attempting communication with another mobile station. Additionally, Mauney et al. fails to teach instructing the first mobile station and the second mobile station to enter a relay mode for direct link communication from the base station. Any instructions in Mauney et al. would be sent from one handset to the other for operating in its handset-to-handset communication mode. They would not instruct the first mobile station and the second mobile station to enter a relay mode for direct link communication. Thus, Mauney et al. does not disclose any method for operating a base station where information is received from a mobile station prior to the mobile station attempting communication with another mobile station.

Therefore the combination of Grube nor Mauney et al. fails to disclose a method for operating a base station in a radiotelephone system, the method comprising at least receiving, from respective mobile stations of the radiotelephone system, information about relay candidates of the respective mobile stations from the mobile station prior to the mobile station attempting communication with another mobile station, storing the information in respective relay candidate lists, and instructing a first mobile station and a second mobile station to enter a relay mode for direct link communication.

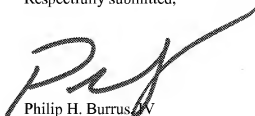
The combination teaches away from Applicant's invention in that it either uses the communication unit technique of Mauney et al. for communication without a base station, or the base station technique of Grube to determine distances between devices without receiving information about detected stations from a mobile station prior to that mobile station attempting to communicate with another mobile station. Applicant notes, "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." MPEP §2141.03, citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). "A prima facie case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention." MPEP §2144.05, citing *In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997).

For these reasons, Applicant respectfully submits that the rejection to claims 12-17 and 19 is overcome in light of the comments above.

CONCLUSION

For the above reasons, Applicants believe the specification and claims are now in proper form, and that the claims all define patentably over the prior art. Applicants believe this application is now in condition for allowance, for which they respectfully submit.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "P. Burrus, Jr.", with a long, sweeping horizontal stroke extending to the right.

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